

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A tantalum sputtering target manufactured by subjecting a molten and cast tantalum ingot or billet to plastic working such as forging, annealing and rolling, said tantalum sputtering target having a non-recrystallized structure.

Claim 2 (original): A tantalum sputtering target according to claim 1, wherein the non-recrystallized structure is 20% or more.

Claim 3 (original): A tantalum sputtering target according to claim 1, wherein the non-recrystallized structure is 40% or more.

Claims 4-6 (canceled).

Claim 7 (previously presented): A method of manufacturing a tantalum sputtering target comprising the steps of subjecting a molten and cast tantalum ingot or billet to forging, annealing and rolling processes, and performing plastic working on said ingot or billet to provide the tantalum sputtering target with a non-recrystallized structure.

Claim 8 (currently amended): A method of manufacturing a tantalum sputtering target comprising the steps of subjecting a molten and cast tantalum ingot or billet made of a tantalum

raw material having a purity of 4N5 (99.995%) or more to forging, annealing and rolling, performing a plastic working process on the ingot or billet, and thereafter annealing the ingot or billet at a temperature of 1173K or less to provide the tantalum sputtering target with a non-recrystallized structure.

Claims 9-12 (canceled).

Claim 13 (previously presented): A tantalum sputtering target according to claim 3, wherein said tantalum sputtering target has a Vickers hardness of 90 or more.

Claim 14 (previously presented): A tantalum sputtering target according to claim 1, wherein said tantalum sputtering target has a Vickers hardness of 90 or more.

Claim 15 (previously presented): A tantalum sputtering target according to claim 1, wherein said tantalum sputtering target has a Vickers hardness of 100 or more.

Claim 16 (previously presented): A tantalum sputtering target according to claim 1, wherein said tantalum sputtering target has a Vickers hardness of 125 or more.

Claim 17 (previously presented): The method according to claim 7, wherein, after said plastic working, said ingot or billet is subjected to finish processing to form a target shape.

Claim 18 (previously presented): The method according to claim 7, wherein said annealing is recrystallization annealing, and wherein said forging and recrystallization annealing processes are repeated two or more times.

Claim 19 (previously presented): The method according to claim 7, wherein extend forging and upset forging are repeatedly performed on the ingot or billet.

Claim 20 (previously presented): The method according to claim 7, wherein said annealing is recrystallization annealing, and wherein said recrystallization annealing is performed at a temperature of between a recrystallization temperature of the ingot or billet and 1673K.

Claim 21 (previously presented): The method according to claim 8, wherein, after said plastic working process or after said step of annealing at 1173K or less, said ingot or billet is subjected to finish processing to form a target shape.

Claim 22 (previously presented): The method according to claim 21, wherein during said step of subjecting the molten and cast tantalum ingot or billet to forging, annealing and rolling, said annealing is recrystallization annealing, and said forging and recrystallization annealing processes are repeated two or more times.

Claim 23 (previously presented): The method according to claim 22, wherein extend forging and upset forging are repeatedly performed on the ingot or billet.

Claim 24 (previously presented): The method according to claim 23, wherein said recrystallization annealing is performed at a temperature of between a recrystallization temperature of the ingot or billet and 1673K.

Claim 25 (previously presented): The method according to claim 8, wherein during said step of subjecting the molten and cast tantalum ingot or billet to forging, annealing and rolling, said annealing is recrystallization annealing, and said forging and recrystallization annealing processes are repeated two or more times.

Claim 26 (previously presented): The method according to claim 8, wherein extend forging and upset forging are repeatedly performed on the ingot or billet.

Claim 27 (previously presented): The method according to claim 8, wherein during said step of subjecting the molten and cast tantalum ingot or billet to forging, annealing and rolling, said annealing is recrystallization annealing performed at a temperature of between a recrystallization temperature of the ingot or billet and 1673K.

Claim 28 (canceled).

Claim 29 (currently amended): The method according to claim 8, wherein said temperature is selected from the group consisting of 700°C, 775°C, and 800°C, 973K, 1048K, and 1073K.

Claim 30 (currently amended): The method according to claim 8, wherein said temperature is ~~700°C to 800°C~~ 973K to 1073K.

Claim 31 (previously presented): A tantalum sputtering target according to claim 1, wherein said tantalum sputtering target is made of high purity tantalum having a purity of 4N5 (99.995%) or more.